

## CLAIMS

What is claimed is:

- 1 1. A mobile, uniprocessor computer system comprising:
  - 2 a high-level baseband controller to operate a radio module in accordance
  - 3 with a wireless communication protocol; and
  - 4 a primary host processor coupled to the high-level baseband controller,
  - 5 the processor having a first portion to process real-time events
  - 6 received from the controller and associated with the wireless
  - 7 communication protocol, and having a second portion to process non
  - 8 real-time events.
- 1 2. The computer system of claim 1, wherein the first portion of the processor
  - 2 includes a non-symmetric processing core to run a first operating system, the
  - 3 second portion of the processor to run a second operating system, and the
  - 4 first and second portions of the processor to share a level-2 cache.
- 1 3. The computer system of claim 1, wherein the first portion of the processor
  - 2 includes a real-time event circuit to halt a non real-time process and to initiate
  - 3 execution of a real-time event handler.
- 1 4. The computer system of claim 3, wherein the first portion of the processor
  - 2 further includes a timer to trigger the real-time event circuit to initiate the
  - 3 execution of the real-time event handler.

1 5. The computer system of claim 3, wherein the processor includes an  
2 externally accessible event pin to trigger the real-time event circuit to initiate  
3 the execution of the real-time event handler.

1 6. The computer system of claim 1, wherein the non real-time events are  
2 associated with running a Windows operating system.

1 7. The computer system of claim 1, further comprising a radio module including  
2 buffered input-output ports coupled to the high-level baseband controller, a  
3 low-level baseband controller, and a transceiver to enable wireless  
4 communication in accordance with the wireless communication protocol, the  
5 module meeting Limited Modular Approval by the Federal Communications  
6 Commission.

1 8. The computer system of claim 7, wherein the low-level baseband controller  
2 includes a baseband portion associated with a link management protocol.

1 9. The computer system of claim 7, further comprising a flexible cable coupled  
2 to the high-level baseband controller at a first end and coupled to the ports of  
3 the radio module at a second end.

1 10. The computer system of claim 9, further comprising a hinged lid into which  
2 the radio module is affixed, the flexible cable extending through a hinge  
3 between the radio module and the high-level baseband controller.

1 11. The computer system of claim 1, further comprising a chipset, the high-level  
2 baseband controller being incorporated into the chipset.

1 12. The computer system of claim 1, further comprising a keyboard controller, the  
2 high-level baseband controller being incorporated into the keyboard  
3 controller.

1 13. The computer system of claim 1, wherein the wireless communication  
2 protocol is selected from a group consisting of Bluetooth, SWAP, and IEEE  
3 802.11.

1 14. A method comprising:  
2 executing a process on a primary host processor of a computer system,  
3 the process being associated with a non real-time operating system;  
4 receiving a real-time event by a transceiver of the computer system from  
5 an external device, the event associated with a wireless  
6 communication protocol;  
7 forwarding the event to the processor; and

8           processing the event in real-time such that the wireless communication  
9           protocol is maintained and a high-level portion of baseband processing  
10          associated with the wireless communication protocol is done by the  
11          processor independent of the operating system.

1    15.    The method of claim 14, wherein a low-level portion of the baseband  
2          processing associated with the wireless communication protocol is done by a  
3          radio module independent of the processor.

1    16.    The method of claim 15, wherein the wireless communication protocol is a  
2          Bluetooth protocol, and the low-level portion of the baseband processing is in  
3          accordance with the Bluetooth link management protocol.

1    17.    The method of claim 14, wherein processing the event in real-time includes  
2          halting the process, saving a processor state to a reserved memory space,  
3          executing a real-time event handler, returning the processor state, and  
4          continuing execution of the process.

1    18.    The method of claim 14, wherein processing the event in real-time includes  
2          processing the event in a first portion of the processor under a first operating  
3          system while continuing execution of the process in a second portion of the  
4          processor under a second operating system.

1 19. A mobile, uniprocessor computer system programmed to implement the  
2 method of claim 14.  
3

1 20. A machine-accessible medium including machine-accessible instructions  
2 that, when executed by a computer system, cause the computer system to  
3 perform the method of claim 14.

1 21. The medium of claim 20, further comprising machine-accessible instructions  
2 that, when executed by the computer system, cause the computer system to  
3 further perform the method of claim 16.  
4